



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,924	02/28/2002	Yoon Kean Wong	035451-0178(3724.Palm)	1157
26371	7590	07/31/2006	EXAMINER	
FOLEY & LARDNER LLP 777 EAST WISCONSIN AVENUE MILWAUKEE, WI 53202-5306			MENGISTU, AMARE	
			ART UNIT	PAPER NUMBER

2629

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,924

Applicant(s)

WONG ET AL.

Examiner

Amare Mengistu

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8,12,14,16-20 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8,12,14,16-20 and 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-4,8,12,14,16-20,22-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as originally filed does not disclose the recited claim limitations of claims 1 and 14 the last 2 lines “*display drivers capable of updating screen resolution and screen display size based on the current expansion of the display screen*” and “*the processor is configured with display drivers to update display resolution and screen display size based upon the current expansion state of the flexible and expandable display*”. The specification as first filed has failed to teach one skill in the art how to make or use the above recited claim limitations.

The specification has also failed to disclose the claim limitation of claim 20, the last 4 lines “*wherein the first display unit and the second display unit may be interchangeably attached to and detached from the processing unit*”. The specification does not teach one teaches one skill in the art how to make or use *the first display unit and the second display unit may be interchangeably attached to and detached from the processing unit*.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4,8,12,14, 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ramakesavan** (US 20030065734A1) in view of **Koenig** (2002/0021258A1).

In regard to claims 1,14,16, **Ramakesavan** discloses a display system for a handheld computing device, the display system comprising:

a visual display (see, fig.2 (210), figs.3A, 3B (390), fig.4 (405), “PDA”) having a communications transceiver ([0023]);

a processing unit (fig.2 (200), figs.3A, 3B (300), fig.4 (400)), having a communications transceiver and sending display data to the transceiver of the visual display ([0023]);

a first power source for the processing unit (fig.4 (435));

and a second power source for the visual display (fig.4 (430)), wherein the visual display is physically separable from the processing unit while displaying information according to communications from the processing unit between the visual display transceiver and the processing unit transceiver (see,[0032],[0034]), and wherein the processing unit is a handheld device (fig.2 (200) “Laptop”).

Ramakesavan has failed to teach that the display unit is flexible and expandable. The patent of **Koenig** is cited to teach that it is well known for a display unit to be flexible and expandable (see, figs. 1-3). **Koenig** also teaches that the driver controls the display images based

Art Unit: 2629

on the display size (current expansion of the display screen) ([0032], [0033]). It would have been obvious to one skill in the art to recognize that the display driver of **Koenig** can update the screen resolution base upon the current expansion of the display screen in order to view continues images.

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to use the flexible and expandable display system of **Koenig** into the display system of **Takahiro**, because this will allow the user to display multiple images simultaneously to provide more functionality.

As to claims 2 and 18, **Takahiro** also discloses that the visual display includes and a storage unit (fig.3 (4)) processing unit (CPU) (fig.3 (2)). **Takahiro** did not expressly state that the storage device is a random access memory (RAM). However, it is well known to use a RAM as a storage system.

In respect to claim 3, **Takahiro** disclose that the visual display CPU receives information over the wireless connection from the handheld computing device and stores the information in the visual display memory (see, page 3 of 5 [0012]).

As to claim 4, **Takahiro** also suggests that the information communicated from the processing unit to the visual display includes information necessary to display the current display image and information related to the current display image (see, page 3 of 5 [0012]).

As to claims 8 and 12, it is inherent for **Takahiro** display system to having input capabilities and the communications transceivers send and receive information using a custom wireless communication protocol.

In regard to claim 17, **Takahiro** discloses a processors power source (fig.3 (17)) and display power source (fig.3 (3)), but failed to teach that the display power source is lighter in weight than the processor power source. However, it would have been obvious to one skill in the art to recognize that the display power source has to be lighter than the processor display because since the display is a portable in order for the user to carry light weight display the power source has to be lighter than the (base unit) processor.

As to claim 19, **Takahiro** also teaches that the transceiver transmits information related to current display screen information to the display system to store in the display system memory while the current display screen information is being viewed (see, [0008], [0012]).

4. Claims 20,22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ramakesavanin** view of **Lunsford et al** (US006614350B1) and **Koenig** (2002/0021258A1).

In regard to claim 20, **Ramakesavanin** teaches applicant claimed invention in the above rejection of claims 1,14,16 except, a second display unit, the second display unit including a second display area, a third processor, a third transceiver coupled to the third processor and configured for communications with the first transceiver, and a third power source coupled to the third processor and also wherein the first display unit and the

second display unit may be interchangeably attached to and detached from the processing unit.

Lunsford et al is cited to teach that it is well known for a computing system to have a second display unit (fig.3, col.4, lines 50-65,col.5, lines 17-31, a second display (“PDA 40”) , a first display (“PDA 20”). It is inherent for the second display unit (40) to have a display, a processor, a power source and a transceiver. **Ramakesavanin** teaches that the first display can be attached/ detachable from the processor (fig.4 and [0032],[0035]). Thus, **Lunsford et al** the first display unit and the second display unit may be interchangeably attached to and detached from the processing unit in order for the display units to exchange information with the processing unit.

Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to have been motivated to incorporate the second display unit of **Lunsford et al** into the first display unit and the processor unit of **Ramakesavanin**, because this will allow the display unit to exchange more information with the processor and each can monitor each other in a security web system.

Koenig discloses an adjustable display device that is flexible and foldable, thus expandable (see, figs. 1-3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of **Ramakesavanin and Lunsford et al** by having the display be flexible and expandable, as in the invention of **Koenig**. One would have been motivated to make such a change based on the teaching of **Koenig** that such

foldable, flexible displays have been developed, offering a small size for portability and a large display screen size for use.

In regard to claims 22-24, **Ramakesavanin** disclose a first display having a power source, but has failed to teach that the second power source is lighter in weight than the third power source, the first display unit is a ruggedized display unit, the first display unit is high resolution display than the second display unit. This is an obvious choice of design. One can pick and chose the weight of the power source or the resolution of the display unit or the rugged it of the display depending upon in ones preference and choice.

Response to Arguments

5. Applicant's arguments with respect to claims 1-4,8,12,14,16-20,22-24 have been considered but are moot in view of the new ground(s) of rejection.

As to the 35 U.S.C. 112, first paragraph rejection Applicant directs the Examiner to look at [0037]-[0039] of the specification. However, the Examiner couldn't find any support for the recitation of the above rejected claims. Thus, the 112, first paragraph rejection has been maintained.

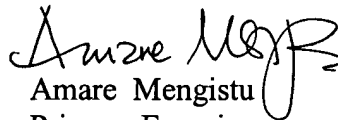
Art Unit: 2629

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (571) 272-7674.

The examiner can normally be reached on M-F,T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Amare Mengistu
Primary Examiner
Art Unit 2673

AM

July 22, 2006